

Title (en)
DIGITAL WIRELESS COMMUNICATION DEVICE AND DIGITAL WIRELESS COMMUNICATION SYSTEM

Title (de)
VORRICHTUNG ZUR DIGITALEN DRAHTLOSEN KOMMUNIKATION UND SYSTEM ZUR DIGITALEN DRAHTLOSEN KOMMUNIKATION

Title (fr)
DISPOSITIF ET SYSTÈME DE COMMUNICATION SANS FIL NUMÉRIQUE

Publication
EP 3190715 A4 20180502 (EN)

Application
EP 15838383 A 20150903

Priority

- JP 2014180668 A 20140904
- JP 2015005292 A 20150114
- JP 2015075087 W 20150903

Abstract (en)
[origin: EP3190715A1] A composite cable (4) houses a plurality of leaky coaxial cables having mutually different radiation characteristics. The leaky coaxial cable (2a, 2b) includes therein an inner conductor and an outer conductor, and has a plurality of leakage slots. The plurality of leakage slots have different slot periods relative to the axial direction or arranged in different slot patterns. The digital wireless communication device feeds a high-frequency signal from an end of the composite cable (4) and performs MIMO (multiple-input multiple-output) communication.

IPC 8 full level
H04B 5/00 (2006.01); **H01Q 13/20** (2006.01); **H01Q 13/22** (2006.01); **H01Q 25/00** (2006.01); **H04B 7/0413** (2017.01); **H04J 99/00** (2009.01); **H01Q 21/28** (2006.01); **H04B 7/10** (2017.01)

CPC (source: EP US)
H01Q 13/203 (2013.01 - EP US); **H01Q 13/22** (2013.01 - EP US); **H01Q 25/004** (2013.01 - EP US); **H04B 1/0483** (2013.01 - US); **H04B 5/28** (2024.01 - EP US); **H04B 7/04** (2013.01 - EP US); **H04B 7/0413** (2013.01 - EP US); **H01Q 21/28** (2013.01 - EP US); **H04B 7/10** (2013.01 - EP US)

Citation (search report)

- [XYI] EP 2495882 A1 20120905 - ALCATEL LUCENT [FR]
- [XYI] JONAS MEDBO ET AL: "Leaky coaxial cable MIMO performance in an indoor office environment", 2012 IEEE 23RD INTERNATIONAL SYMPOSIUM ON PERSONAL, INDOOR AND MOBILE RADIO COMMUNICATIONS (PIMRC 2012) : SYDNEY, AUSTRALIA, 9 - 12 SEPTEMBER 2012, IEEE, PISCATAWAY, NJ, 9 September 2012 (2012-09-09), pages 2061 - 2066, XP032272886, ISBN: 978-1-4673-2566-0, DOI: 10.1109/PIMRC.2012.6362694
- [Y] HIGASHINO TAKESHI ET AL: "A wireless sensing technique based on channel estimation in leaky coaxial cable antenna system", 2014 XXXITH URSI GENERAL ASSEMBLY AND SCIENTIFIC SYMPOSIUM (URSI GASS), IEEE, 16 August 2014 (2014-08-16), pages 1 - 4, XP032663896, DOI: 10.1109/URSIGASS.2014.6929350
- [A] HOU YAFEI ET AL: "2 by 2 MIMO system using single leaky coaxial cable for linear-cells", 2014 IEEE 25TH ANNUAL INTERNATIONAL SYMPOSIUM ON PERSONAL, INDOOR, AND MOBILE RADIO COMMUNICATION (PIMRC), IEEE, 2 September 2014 (2014-09-02), pages 327 - 331, XP032789533, DOI: 10.1109/PIMRC.2014.7136184
- [XPI] YAFEI HOU ET AL: "Realization of 4-by-4 MIMO channel using one composite leaky coaxial cable", 2015 12TH ANNUAL IEEE CONSUMER COMMUNICATIONS AND NETWORKING CONFERENCE (CCNC), 1 January 2015 (2015-01-01), pages 97 - 102, XP055327930, ISBN: 978-1-4799-6390-4, DOI: 10.1109/CCNC.2015.7157953
- [XPI] HOU YAFEI ET AL: "4-by-4 MIMO channel using two leaky coaxial cables (LCXs) for wireless applications over linear-cell", 2014 IEEE 3RD GLOBAL CONFERENCE ON CONSUMER ELECTRONICS (GCCE), IEEE, 7 October 2014 (2014-10-07), pages 125 - 126, XP032732888, DOI: 10.1109/GCCE.2014.7031177
- See references of WO 2016035857A1

Cited by
CN114696102A

Designated contracting state (EPC)
AL AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO RS SE SI SK SM TR

DOCDB simple family (publication)
EP 3190715 A1 20170712; EP 3190715 A4 20180502; EP 3190715 B1 20201209; JP 2016059025 A 20160421; JP 5903699 B1 20160413; US 10326496 B2 20190618; US 2018145728 A1 20180524

DOCDB simple family (application)
EP 15838383 A 20150903; JP 2015005292 A 20150114; US 201515125999 A 20150903